



Table 1

JC25
PATENT & TRADEMARK
OFFICE

No.	Fluorine Compound Solution			Additional Metal Salt			Solution			Precipitate		
	Kinds	Concentration, Amount	Amount of Anion	Divalent	Trivalent	pH	Amount	Anion Concentration	Anion	Fixing Ratio		
1	Per-fluoro-octanoic acid ammonium ($C_7F_{15}COONH_4$)	Aqueous solution of 0.1%, 1000ml	2.32 mmol	Zn 4.64 mmol	Al 2.32 mmol	7	1.50g	2.23mmol		96.1%		
2	Ditto	Aqueous solution of 0.1%, 1000ml	2.32 mmol	Zn:4.64 mmol	Al:2.32 mmol	7	1.50g	2.3mmol		99.1%		
		Aqueous solution of 0.1%, 1000ml	0.232 mmol	Zn:0.464 mmol	Al:0.232 mmol		0.15g	0.21mmol		91.0%		
3	Ditto	Aqueous solution of 0.1%, 1000ml	2.32 mmol	Zn 4.64 mmol	Al 2.32 mmol	5	1.50g	2.27mmol		98%		
4	Ditto	Aqueous solution of 0.1%, 1000ml	2.32 mmol	Mg 4.64 mmol	Al 2.32 mmol	10	1.10g	1.4mmol		80%		
5	Ditto	Aqueous solution of 0.1%, 1000ml	2.32 mmol	Ca 4.64 mmol	Al 2.32 mmol	10	0.85g	2.3mmol		60%		
6	Per-fluoro-octyl-sulfonic acid Ammonium ($C_8F_{17}SO_3NH_4$)	Aqueous solution of 0.1%, 1200ml	2.32 mmol	Zn 4.64 mmol	Al 2.32 mmol	7	1.70g	2.23mmol		99%		
7	Per-fluoro-octyl-sulfonic acid lithium ($C_8F_{17}SO_3Li$)	Aqueous solution of 0.1%, 117ml	2.32 mmol	Zn 4.64 mmol	Al 2.32 mmol	7	1.65g	2.21mmol		95%		
10	Per-fluoro-decanoic acid Ammonium ($C_9F_{19}COONH_4$)	Aqueous solution of 0.005%, 1000ml	1.161mmol	Zn 2.32mmol	Al 2.32 mmol	7	0.84g	1.09mmol		94%		